Carnegie Learning, Inc.

Algebra II

The Algebra II curriculum is based on 20 years of research at Carnegie Mellon Univ. Algebra II promotes the understanding of both linear and non-linear functional forms, as well as the relationship between text, equations, graphs, and tables through the mathematical modeling of realistic situations. The Algebra II program motivates students to talk about mathematical functions, tackle real-world problems, strengthen their conceptual foundations and understand Algebra's relevance in everyday life. Classroom activities address both mathematical content and process standards. Students engage in problem solving, communication and reasoning while making connections using multiple representations. The textbook provides an opportunity for extended investigations, analysis and alternate solution paths. Real-world situations are used in problems designed to emphasize connections between verbal, numeric, graphic and algebraic representations. The classroom environment promotes discourse, collaborative work and depth of understanding.

Curriculum is correlated to the Kentucky Program of Studies and Core Content for Assessment 4.1. Algebra II is also supported by a comprehensive Professional Development plan.

Teacher Edition

9781934800256		$85.00
Algebra II Teacher Edition		

Essential Items

9781934800188	Nimas	
Algebra II Student Assignments		
9781934800232	Nimas	
Algebra II Homework Helper		

Ancillary Items

9781934800553	Section 508	$271.20
Algebra II Cognitive Tutor Software		

Free with Purchase items

ISBN
9781934800249

Contract Price
$76.00

Grade
10,11,12

TYPE
P2

Copyright
2008

Author
Carnegie Learning, Inc.

Edition
2008

Content
Algebra II

Readability
Lexile = 1000

Accessibility
Nimas

Research
www.carnegielearning.com/approach_research.cfm

Provided by the Publisher

ISBN 9781934800249	Publisher - **Carnegie Learning, Inc.**		
Algebra II			
Type - P2	Author - Carnegie Learning, Inc.		
Copyright - 2008	Edition - 2008	Readability - Lexile = 1000	
Course - Algebra II		Grade(s) - 10,11,12	
Teacher Edition ISBN if applicable 9781934800256			

Provided by the Publisher

Overall Recommendation: **Recommended as BASAL**

if this box is not checked, the evaluators have chosen NOT recommend as basal

Overall Strengths, Weaknesses, Comments:

In selection of this text the teacher must be certain probability and statistics content standard are addressed in previous or subsequent courses. The teacher must also have an understanding of technology that will allow him/her to recognize the appropriate places to imbed technology applications as these are not emphasized in the text. The problem solving and group work are at a high level and often require reflective writing. However, the student assignments occur at the end of the already large textbook rather than as a separate workbook. Finally, the text being paperbound rather than hardbound raises concerns about durability.

NIMAC Accessibility	N	
Ancillary	Yes	
Free with Purchase	No	
Research	Yes	www.carnegielearning.com/approach_research.cfm

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CRITERIA

This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations **Moderate Evidence**

Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 5 Big Ideas of mathematics to the following extent:

a) Number Properties and Operations Strong Evidence

b) Measurement	Not Applicable
c) Geometry	Not Applicable
d) Data Analysis and Probability	Moderate Evidence
e) Algebraic Thinking	Strong Evidence
2) Addresses content-specific enduring understandings from the related Program of Studies standards.	Moderate Evidence
3) Addresses content-specific skills and concepts from the related Program of Studies standards.	Moderate Evidence
4) Content addressed is current, relevant and non-trivial	Strong Evidence
5) Provides opportunities for critical thinking/reasoning	Strong Evidence

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

Strenghts: Greatly encourages student investigations; emphasis on real world connections; requires higher order thinking in applying concepts

Weaknesses: No investigations of probability; no statistical analysis (bell curve, etc.); no evidence of impact of sampling methods or data displays

B. Functionality & Suitability — Moderate Evidence

1) Suitability — **Strong Evidence**

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality — **Strong Evidence**

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community
- Interconnections among mathematical topics

3) Connections to Literacy — **Moderate Evidence**

- Employs a variety of reading levels and is grade/level appropriate
- Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- The text is engaging and facilitates learning

- Embedded activities enhance the understanding of the text
  Note: may apply to either student or teacher editions

4) Connections to Technology **Little or No Evidence**

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data
- Embeds web links as a mathematics resource.

5) Support for Diverse Learners **Moderate Evidence**

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties
  Note: may apply to either student or teacher editions

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Strengths: allowance of individualized pacing for students; continual reflective writing; connections to science and other real world concepts

Weaknesses: complete lack of technology reference (only reference is to an ancillary material); lack of a glossary; allows for accelerated pacing for gifted students but not more in depth study

C. Supports Inquiry and Skill Development — Moderate Evidence

1) Promotes Inquiry, research and Application of Learning Moderate Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions, formulating authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development Strong Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

Weakness: absence of technology

D. Supports Best Practices of Teaching and Learning — Moderate Evidence

1) Engages Students — Strong Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated
  Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction — Moderate Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Strengths: the engagement of real world problem solving
Weaknesses: assessments mirror class and homework activities; lack of variety in assessment types (no multiple choice)

E. Has an Organization/ Format that Supports Learning and Teaching — Moderate Evidence

1) Organizational Quality — Choose an item.

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) Moderate Evidence

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Weaknesses: size and durability of text; lack of probability and statistics; no use of media

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

Little or No Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The only ancillary material is a CD that was unable to be accessed.

Suggestion is that the student assignments be printed as a separate workbook that is part of the free with order renewable material each year of adoption.